

Figure 1

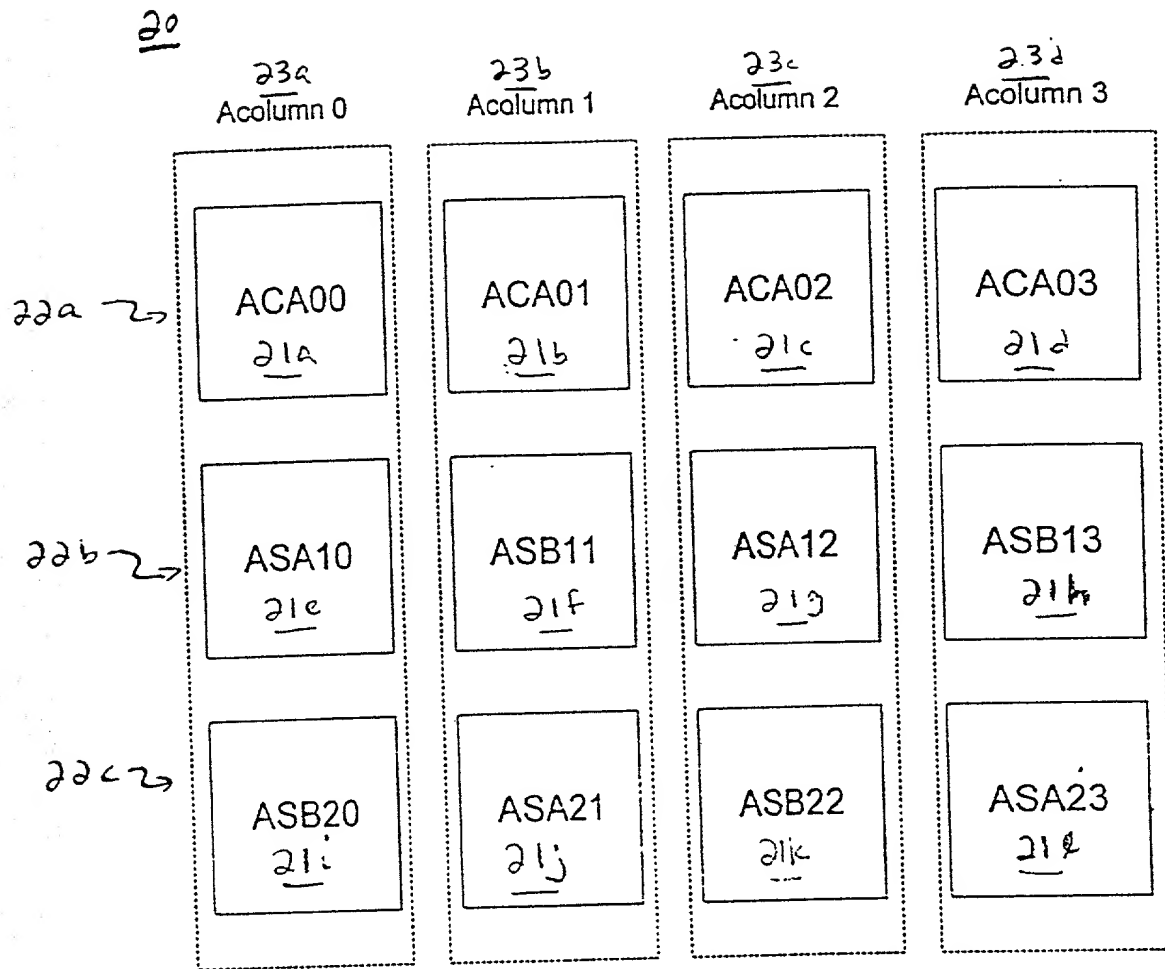


Figure 2

20 23a 23b 23c 25e

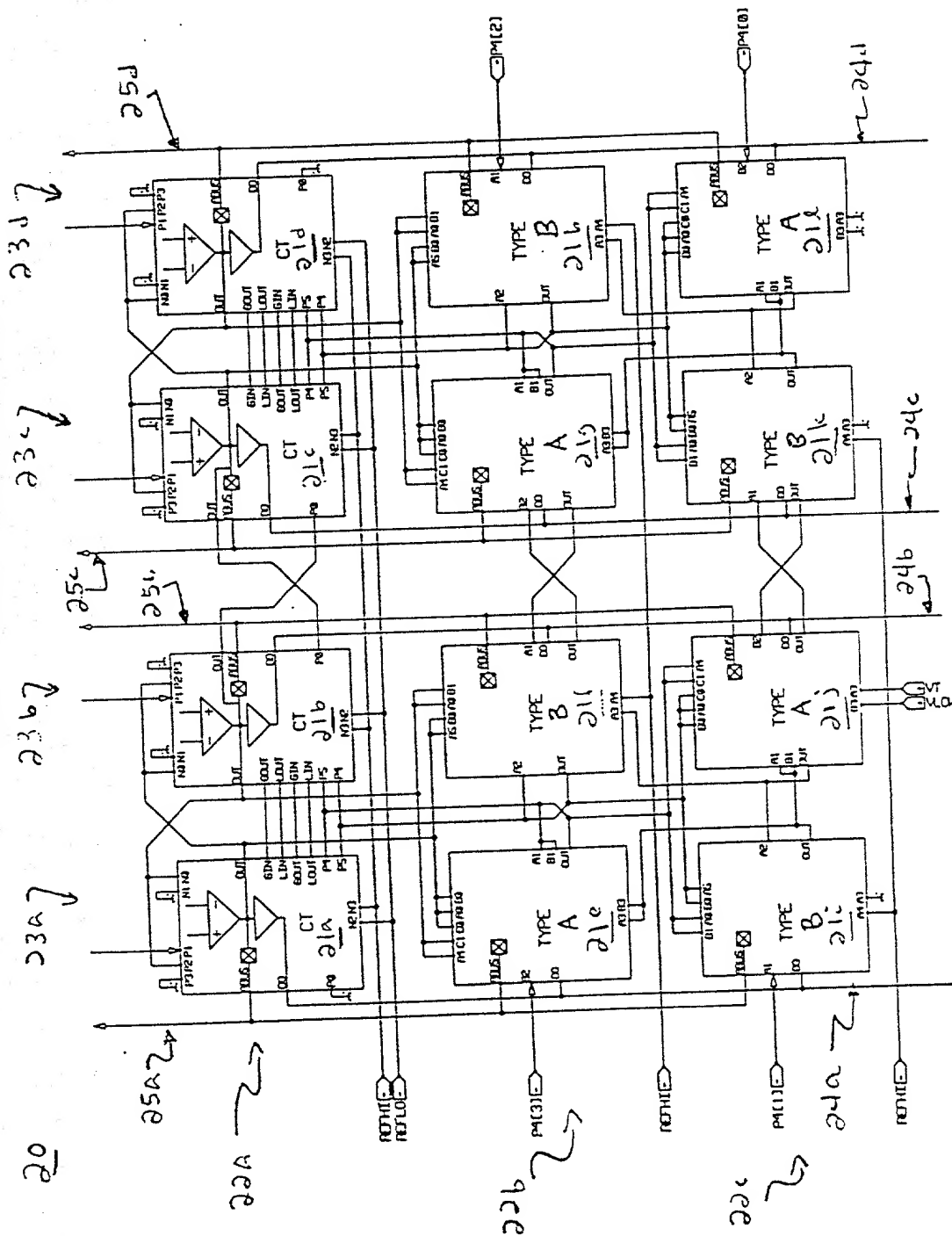


Figure 3

40

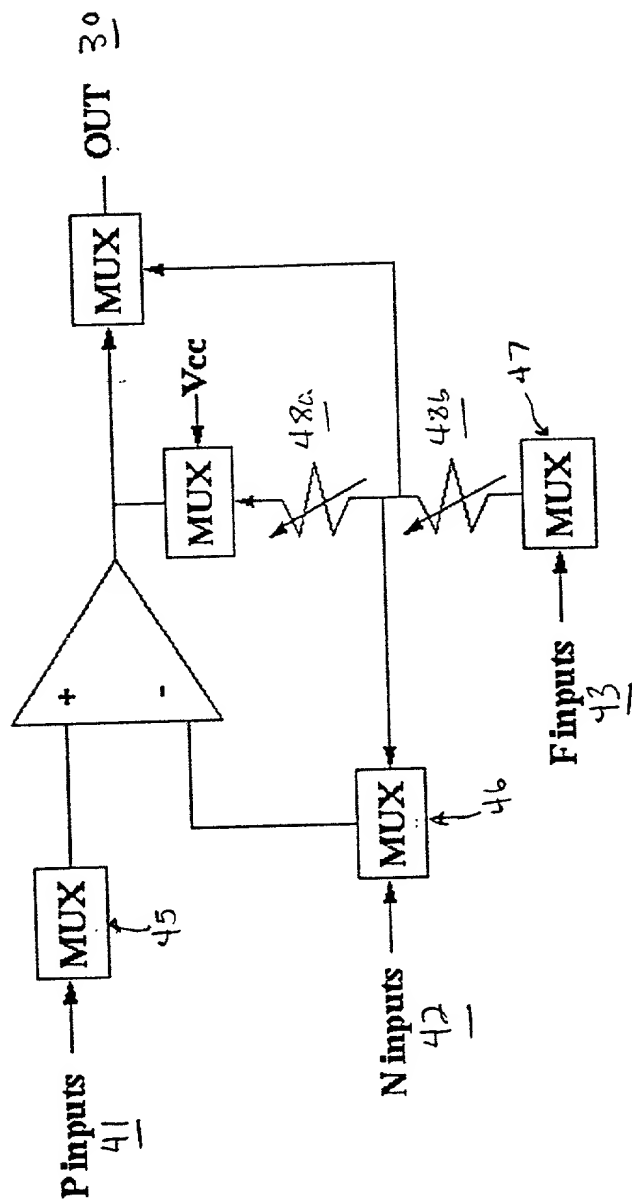


Figure 4A

40

41

49 COMP

50 PWR

60 Block Inputs

61 Port Inputs

25 ABUS

54 AGND

45

55 P.MUX

56 N.MUX

60 Block Inputs

54 AGND

REFHI, LO

72 73

46

(FB)

74 GAIN

51 GIN

52 LIN

47

69 R.MUX

48a

48b

RESISTOR MATRIX

61 Port Input

54 AGND

72 REFLO

73 REFHI

32

O.MUX

77

75 C.PHASE

76 C.LATCH

78 CS

79 OS

GOUT

CBUS

24

OUT

ABUS

25

LOUT

42

43

44

Figure 4B

40

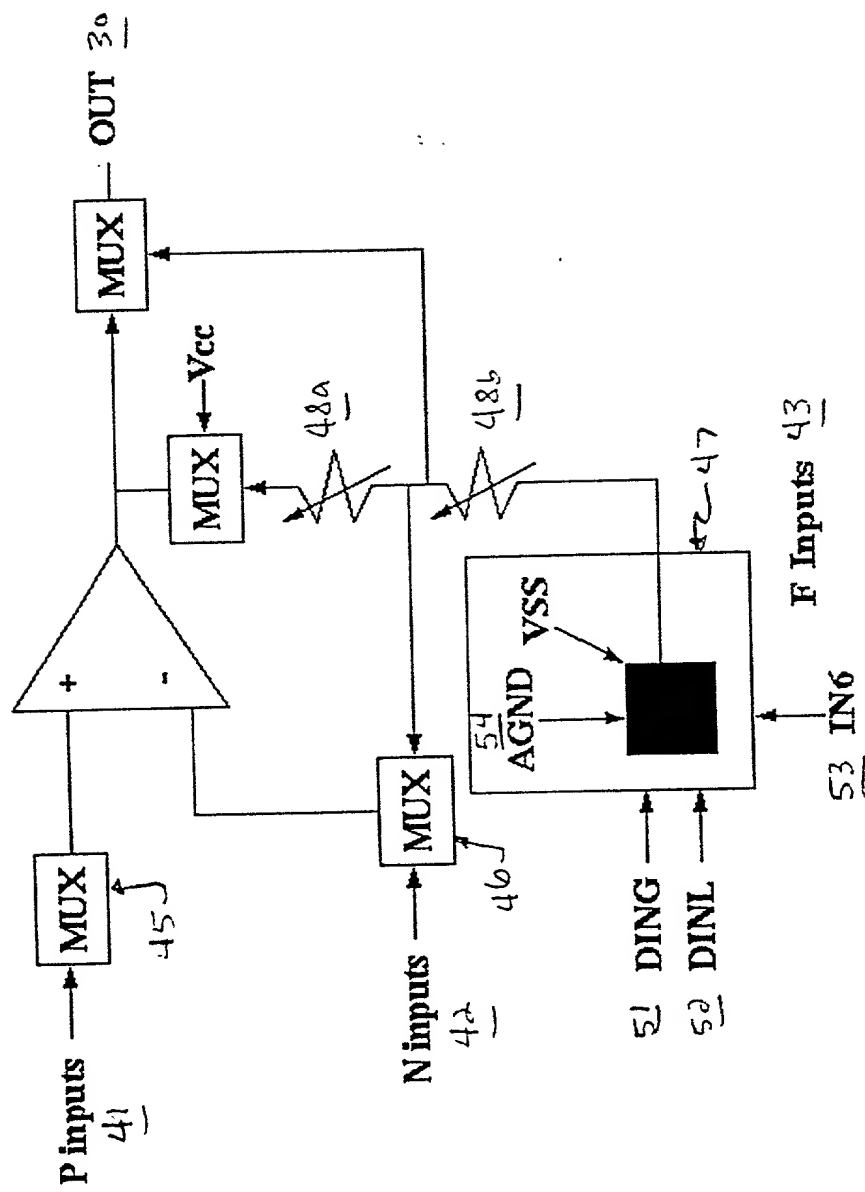


Figure 5

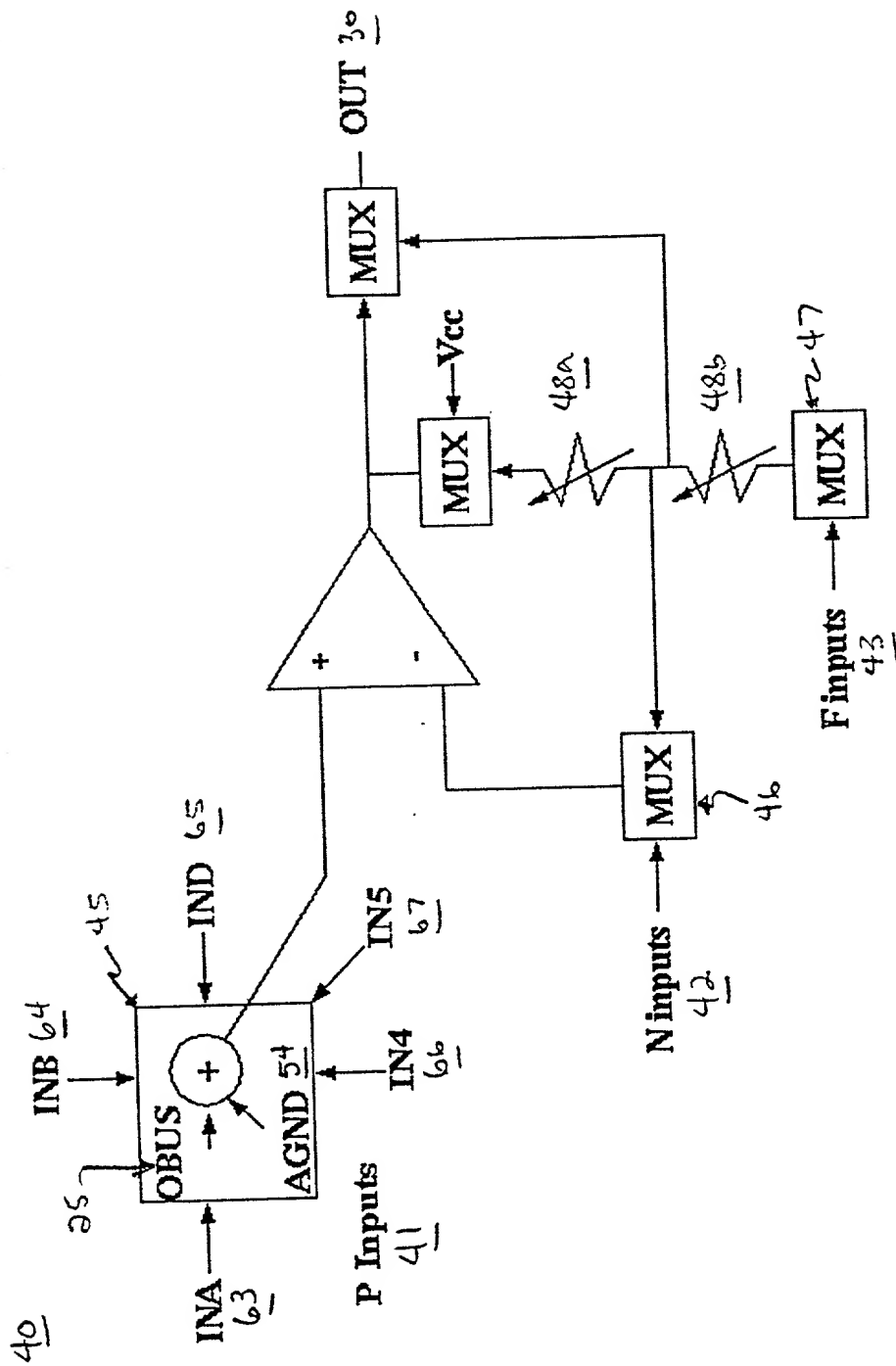


Figure 6

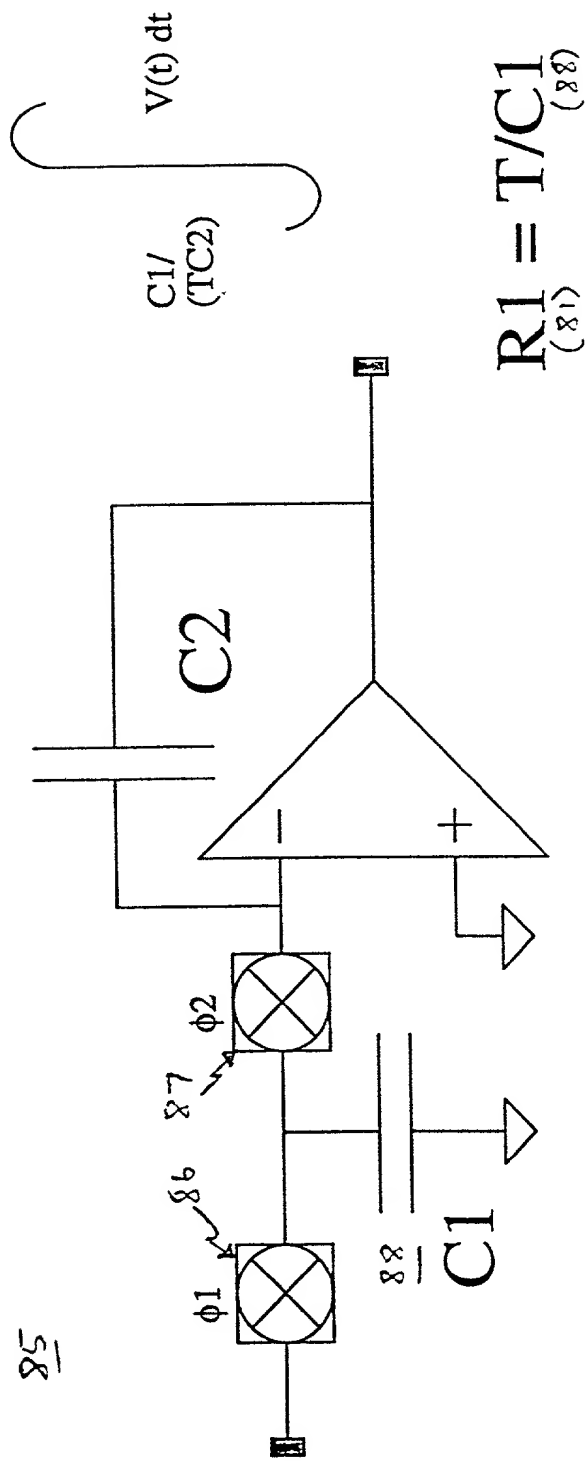


Figure 8B

1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319</
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90

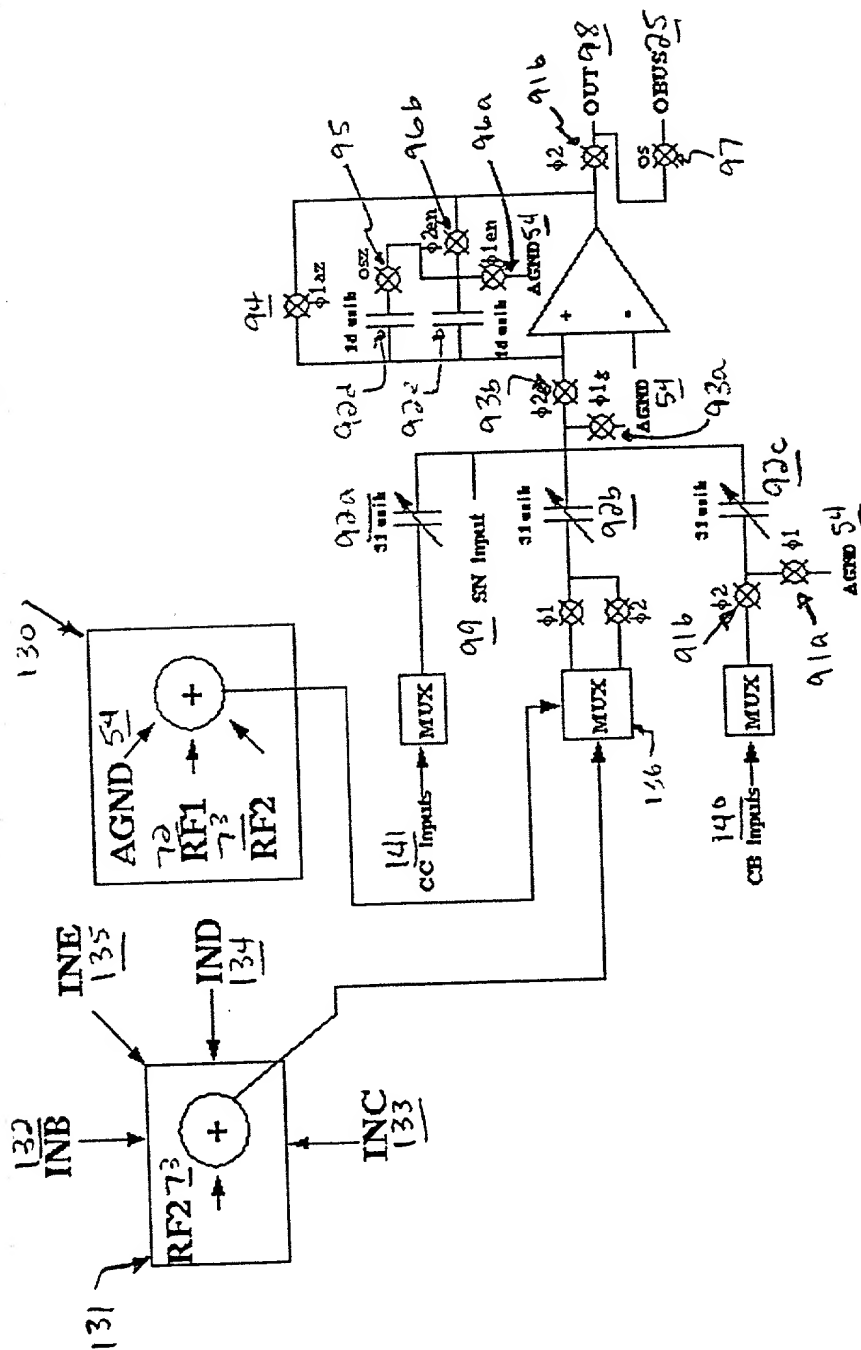


Figure 10

90

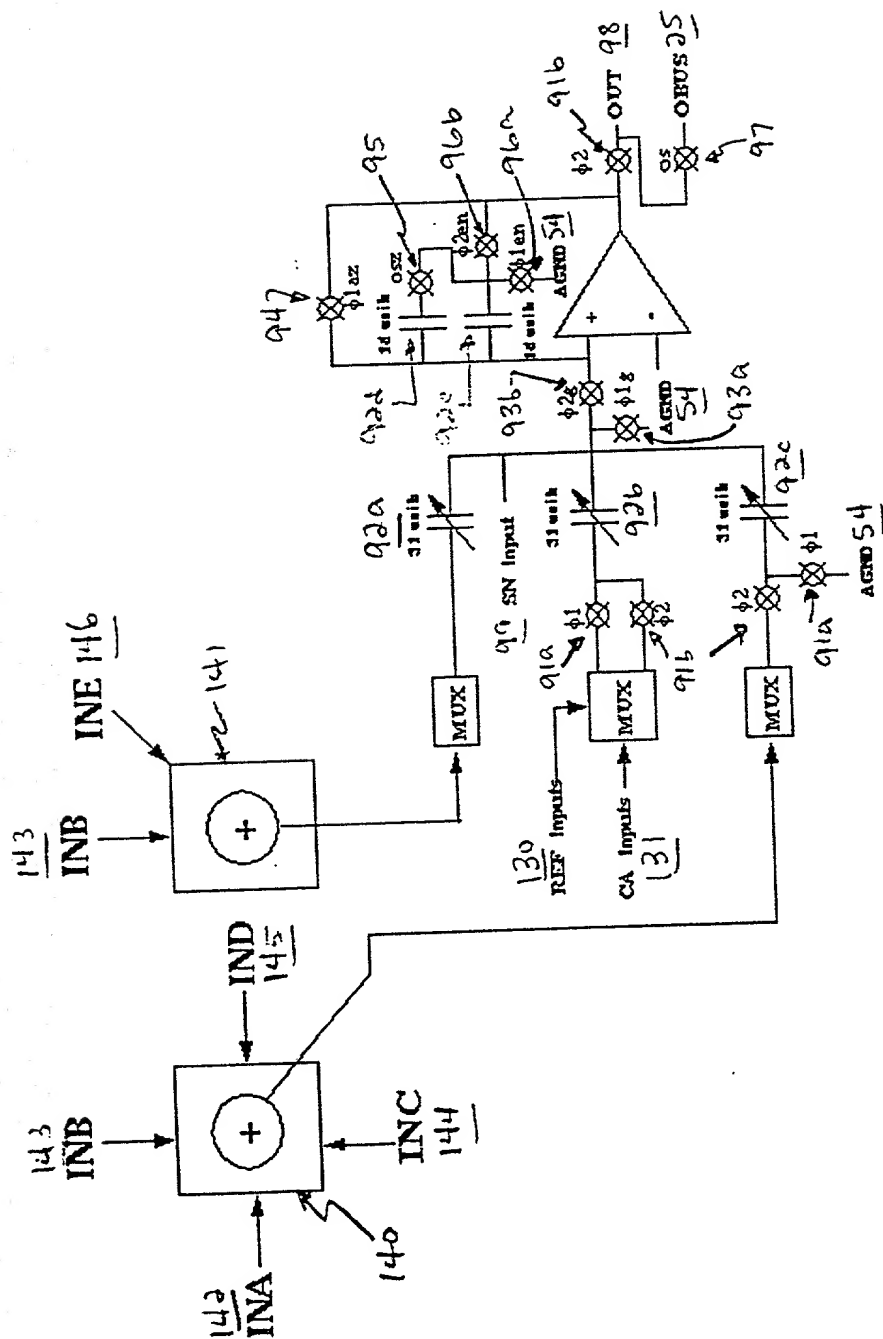


Figure 11

100

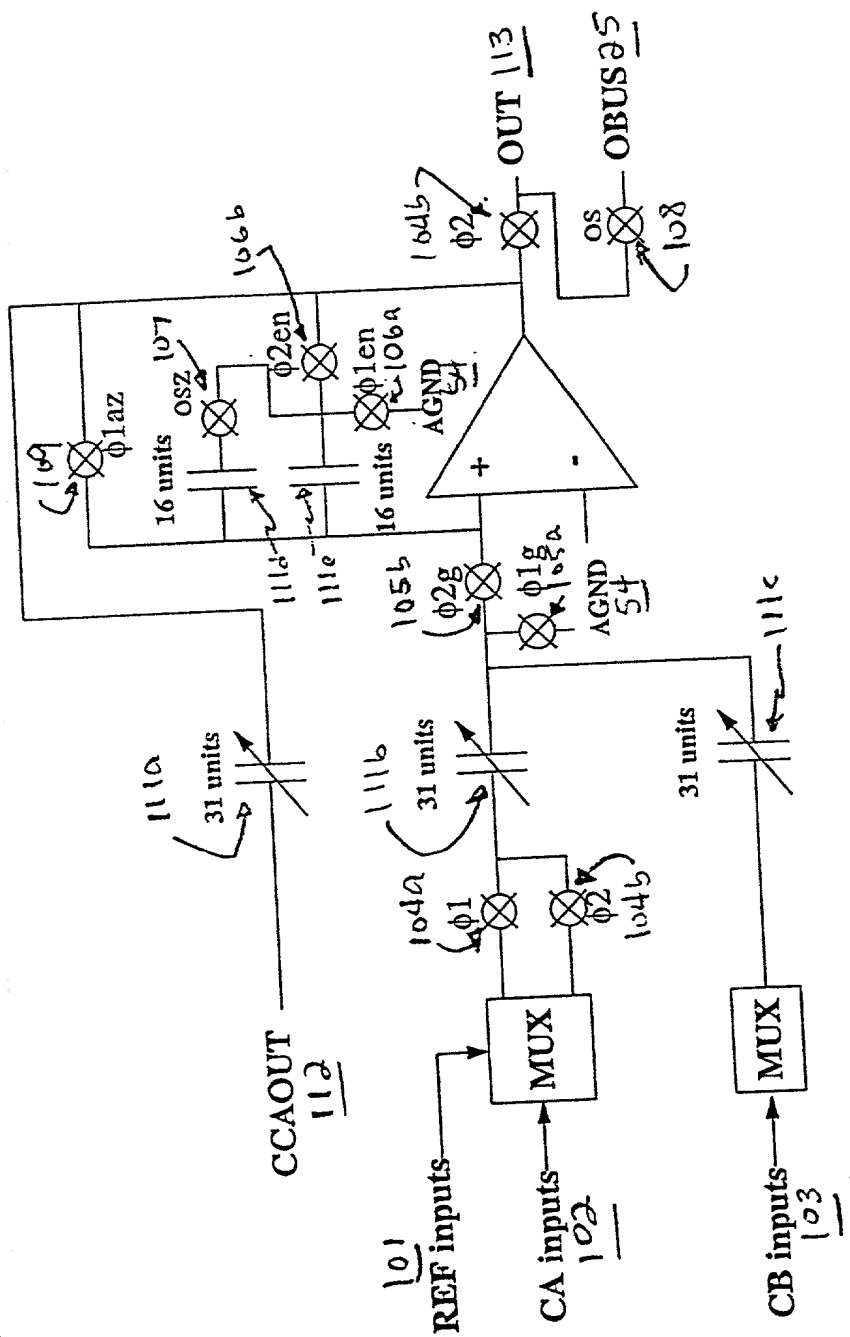


Figure 12A

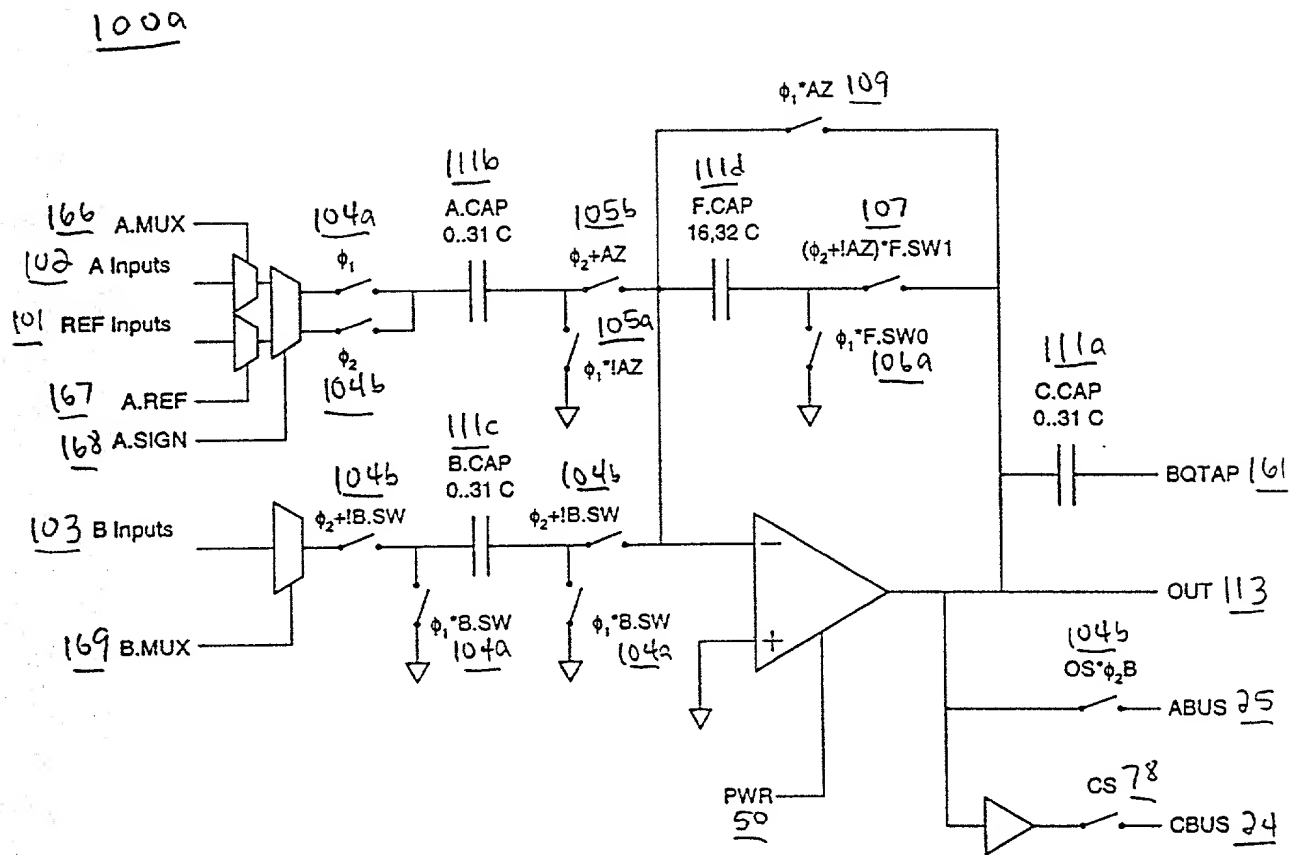


Figure 12B

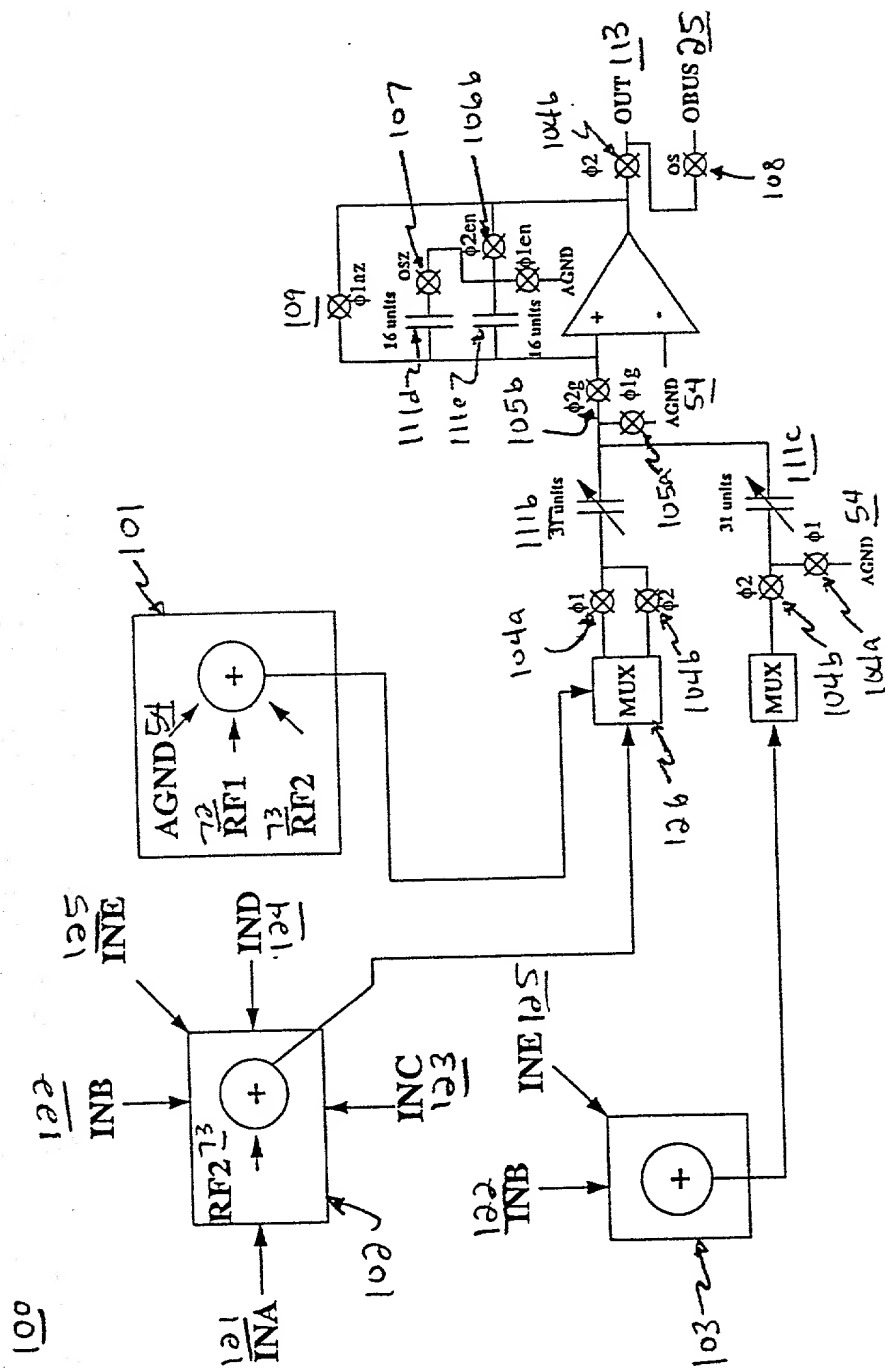


Figure 13

110

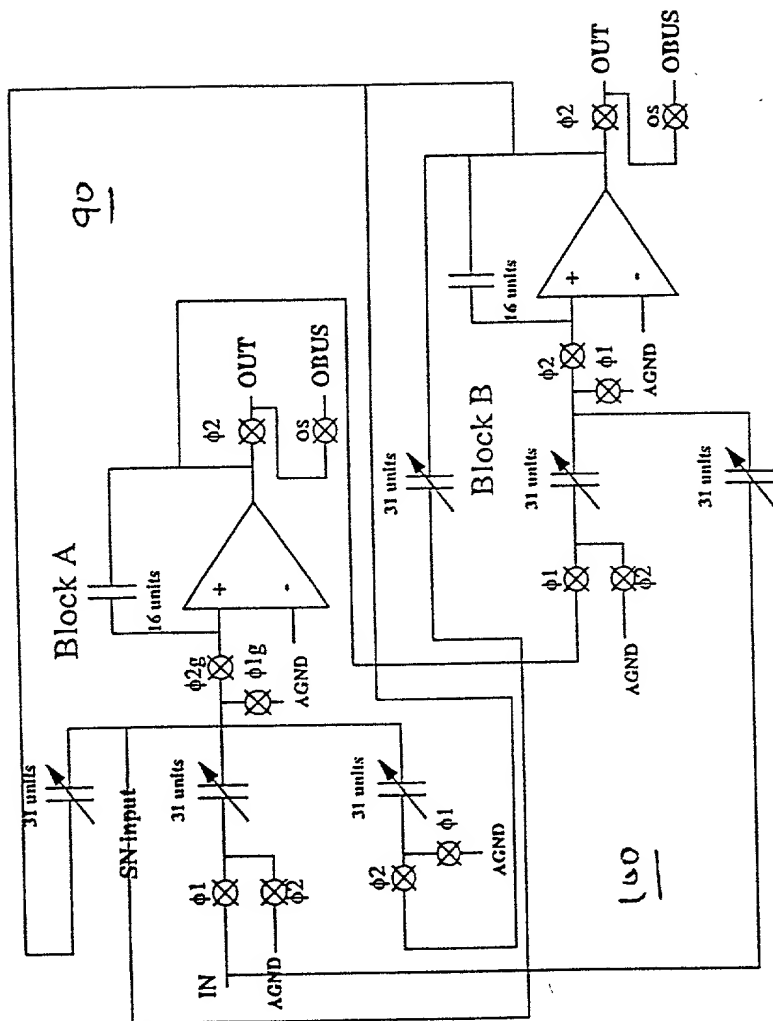


Figure 14A

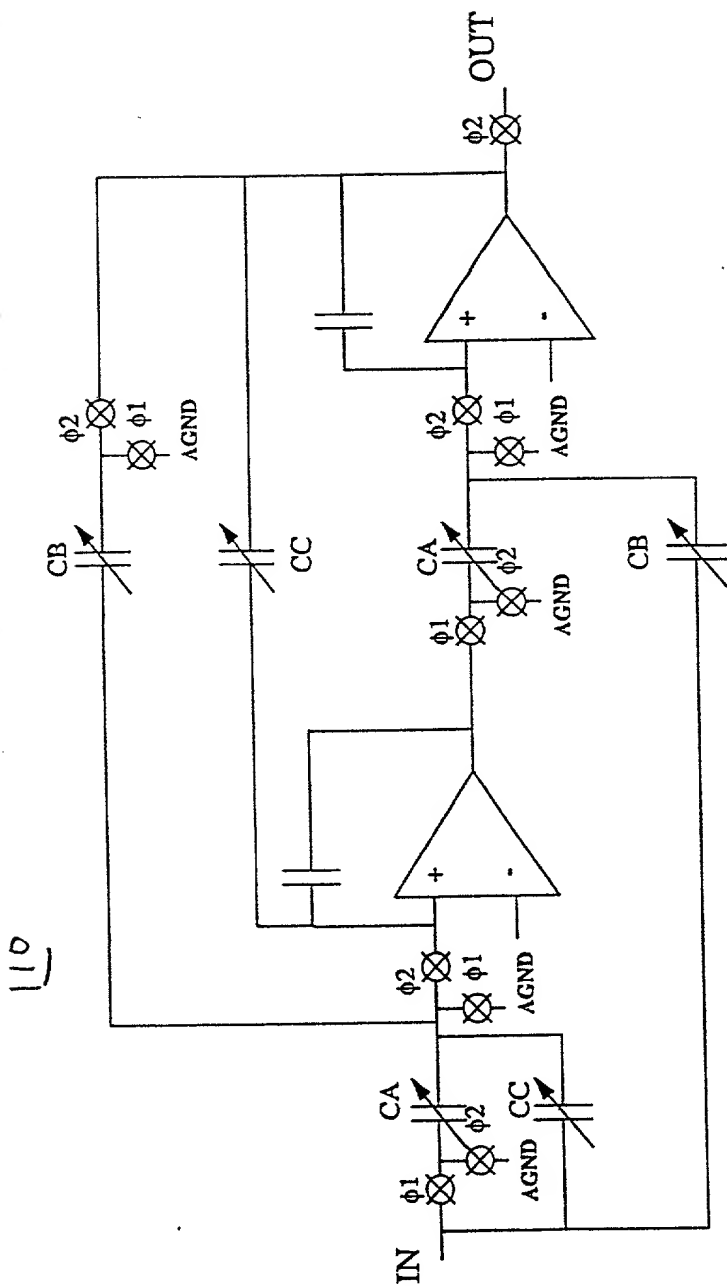


Figure 14B

150a

00000000 00000000 00000000 00000000

Reg Name	Addr	Reg Name	Addr	Reg Name	Addr	Reg Name	Addr
PRT0DR	000	reserved	040	ASA10CR0	080	reserved	0C0
PRT0IE	001	reserved	041	ASA10CR1	081	reserved	0C1
PRT0GS	002	reserved	042	ASA10CR2	082	reserved	0C2
reserved	003	reserved	043	ASA10CR3	083	reserved	0C3
PRT1DR	004	reserved	044	ASB11CR0	084	reserved	0C4
PRT1IE	005	reserved	045	ASB11CR1	085	reserved	0C5
PRT1GS	006	reserved	046	ASB11CR2	086	reserved	0C6
reserved	007	reserved	047	ASB11CR3	087	reserved	0C7
PRT2DR	008	reserved	048	ASA12CR0	088	reserved	0C8
PRT2IE	009	reserved	049	ASA12CR1	089	reserved	0C9
PRT2GS	00A	reserved	04A	ASA12CR2	08A	reserved	0CA
reserved	00B	reserved	04B	ASA12CR3	08B	reserved	0CB
PRT3DR	00C	reserved	04C	ASB13CR0	08C	reserved	0CC
PRT3IE	00D	reserved	04D	ASB13CR1	08D	reserved	0CD
PRT3GS	00E	reserved	04E	ASB13CR2	08E	reserved	0CE
reserved	00F	reserved	04F	ASB13CR3	08F	reserved	0CF
PRT4DR	010	reserved	050	ASB20CR0	090	reserved	0D0
PRT4IE	011	reserved	051	ASB20CR1	091	reserved	0D1
PRT4GS	012	reserved	052	ASB20CR2	092	reserved	0D2
reserved	013	reserved	053	ASB20CR3	093	reserved	0D3
PRT5DR	014	reserved	054	ASA21CR0	094	reserved	0D4
PRT5IE	015	reserved	055	ASA21CR1	095	reserved	0D5
PRT5GS	016	reserved	056	ASA21CR2	096	reserved	0D6
reserved	017	reserved	057	ASA21CR3	097	reserved	0D7
reserved	018	reserved	058	ASB22CR0	098	reserved	0D8
reserved	019	reserved	059	ASB22CR1	099	reserved	0D9
reserved	01A	reserved	05A	ASB22CR2	09A	reserved	0DA
reserved	01B	reserved	05B	ASB22CR3	09B	reserved	0DB
reserved	01C	reserved	05C	ASA23CR0	09C	reserved	0DC
reserved	01D	reserved	05D	ASA23CR1	09D	reserved	0DD
reserved	01E	reserved	05E	ASA23CR2	09E	reserved	0DE
reserved	01F	reserved	05F	ASA23CR3	09F	reserved	0DF
DBA00DR0	020	AMX IN	060	reserved	0A0	INT MSK0	0E0
DBA00DR1	021	reserved	061	reserved	0A1	INT MSK1	0E1
DBA00DR2	022	reserved	062	reserved	0A2	INT VC	0E2
DBA00CR0	023	ARF CR	063	reserved	0A3	RES WDT	0E3
DBA01DR0	024	CMP CR	064	reserved	0A4	DEC DH or	0E4
DBA01DR1	025	ASY CR	065	reserved	0A5	DEC DL	0E5
DBA01DR2	026	reserved	066	reserved	0A6	DEC CR	0E6
DBA01CR0	027	reserved	067	reserved	0A7	reserved	0E7
DCA02DR0	028	reserved	068	reserved	0A8	MUL X	0E8
DCA02DR1	029	reserved	069	reserved	0A9	MUL Y	0E9
DCA02DR2	02A	reserved	06A	reserved	0AA	MUL DH	0EA
DCA02CR0	02B	reserved	06B	reserved	0AB	MUL DL	0EB
DCA03DR0	02C	reserved	06C	reserved	0AC	ACC DR0 or	0EC
DCA03DR1	02D	reserved	06D	reserved	0AD	ACC DR1 or	0ED
DCA03DR2	02E	reserved	06E	reserved	0AE	ACC DR2 or	0EE
DCA03CR0	02F	reserved	06F	reserved	0AF	ACC DR3 or	0EF
DBA04DR0	030	reserved	070	reserved	0B0	reserved	0F0
DBA04DR1	031	ACA00CR0	071	reserved	0B1	reserved	0F1
DBA04DR2	032	ACA00CR1	072	reserved	0B2	reserved	0F2
DBA04CR0	033	ACA00CR2	073	reserved	0B3	reserved	0F3
DBA05DR0	034	reserved	074	reserved	0B4	reserved	0F4
DBA05DR1	035	ACA01CR0	075	reserved	0B5	reserved	0F5
DBA05DR2	036	ACA01CR1	076	reserved	0B6	reserved	0F6
DBA05CR0	037	ACA01CR2	077	reserved	0B7	reserved	0F7
DCA06DR0	038	reserved	078	reserved	0B8	reserved	0F8
DCA06DR1	039	ACA02CR0	079	reserved	0B9	reserved	0F9
DCA06DR2	03A	ACA02CR1	07A	reserved	0BA	reserved	0FA
DCA06CR0	03B	ACA02CR2	07B	reserved	0BB	reserved	0FB
DCA07DR0	03C	reserved	07C	reserved	0BC	reserved	0FC
DCA07DR1	03D	ACA03CR0	07D	reserved	0BD	reserved	0FD
DCA07DR2	03E	ACA03CR1	07E	reserved	0BE	reserved	0FE
DCA07CR0	03F	ACA03CR2	07F	reserved	0BF	CPU SCR	0FF

Figure 15A

[illegible]

Reg Name	Addr	Reg Name	Addr	Reg Name	Addr	Reg Name	Addr
PRT00M0	000	reserved	040	ASA10CR0	080	reserved	0C0
PRT00M1	001	reserved	041	ASA10CR1	081	reserved	0C1
PRT01C0	002	reserved	042	ASA10CR2	082	reserved	0C2
PRT01C1	003	reserved	043	ASA10CR3	083	reserved	0C3
PRT10M0	004	reserved	044	ASB11CR0	084	reserved	0C4
PRT10M1	005	reserved	045	ASB11CR1	085	reserved	0C5
PRT11C0	006	reserved	046	ASB11CR2	086	reserved	0C6
PRT11C1	007	reserved	047	ASB11CR3	087	reserved	0C7
PRT2DM0	008	reserved	048	ASA12CR0	088	reserved	0C8
PRT2DM1	009	reserved	049	ASA12CR1	089	reserved	0C9
PRT2IC0	00A	reserved	04A	ASA12CR2	08A	reserved	0CA
PRT2IC1	00B	reserved	04B	ASA12CR3	08B	reserved	0CB
PRT3DM0	00C	reserved	04C	ASB13CR0	08C	reserved	0CC
PRT3DM1	00D	reserved	04D	ASB13CR1	08D	reserved	0CD
PRT3IC0	00E	reserved	04E	ASB13CR2	08E	reserved	0CE
PRT3IC1	00F	reserved	04F	ASB13CR3	08F	reserved	0CF
PRT4DM0	010	reserved	050	ASB20CR0	090	reserved	0D0
PRT4DM1	011	reserved	051	ASB20CR1	091	reserved	0D1
PRT4IC0	012	reserved	052	ASB20CR2	092	reserved	0D2
PRT4IC1	013	reserved	053	ASB20CR3	093	reserved	0D3
PRT5DM0	014	reserved	054	ASA21CR0	094	reserved	0D4
PRT5DM1	015	reserved	055	ASA21CR1	095	reserved	0D5
PRT5IC0	016	reserved	056	ASA21CR2	096	reserved	0D6
PRT5IC1	017	reserved	057	ASA21CR3	097	reserved	0D7
reserved	018	reserved	058	ASB22CR0	098	reserved	0D8
reserved	019	reserved	059	ASB22CR1	099	reserved	0D9
reserved	01A	reserved	05A	ASB22CR2	09A	reserved	0DA
reserved	01B	reserved	05B	ASB22CR3	09B	reserved	0DB
reserved	01C	reserved	05C	ASA23CR0	09C	reserved	0DC
reserved	01D	reserved	05D	ASA23CR1	09D	reserved	0DD
reserved	01E	reserved	05E	ASA23CR2	09E	reserved	0DE
reserved	01F	reserved	05F	ASA23CR3	09F	reserved	0DF
OBA00FN	020	CLK_CR0	060	reserved	0A0	OSC_CR0	0E0
OBA00IN	021	CLK_CR1	061	reserved	0A1	OSC_CR1	0E1
OBA00OU	022	ABF_CR	062	reserved	0A2	reserved	0E2
reserved	023	AMD_CR	063	reserved	0A3	VLT_CR	0E3
OBA01FN	024	reserved	064	reserved	0A4	reserved	0E4
OBA01IN	025	reserved	065	reserved	0A5	reserved	0E5
OBA01OU	026	reserved	066	reserved	0A6	reserved	0E6
reserved	027	reserved	067	reserved	0A7	reserved	0E7
OCA02FN	028	reserved	068	reserved	0A8	IMO_TR	0E8
OCA02IN	029	reserved	069	reserved	0A9	ILO_TR	0E9
OCA02OU	02A	reserved	06A	reserved	0AA	BDG_TR	0EA
reserved	02B	reserved	06B	reserved	0AB	ECO_TR	0EB
OCA03FN	02C	reserved	06C	reserved	0AC	reserved	0EC
OCA03IN	02D	reserved	06D	reserved	0AD	reserved	0ED
OCA03OU	02E	reserved	06E	reserved	0AE	reserved	0EE
reserved	02F	reserved	06F	reserved	0AF	reserved	0EF
OBA04FN	030	reserved	070	reserved	0B0	reserved	0F0
OBA04IN	031	ACA00CR0	071	reserved	0B1	reserved	0F1
OBA04OU	032	ACA00CR1	072	reserved	0B2	reserved	0F2
reserved	033	ACA00CR2	073	reserved	0B3	reserved	0F3
OBA05FN	034	reserved	074	reserved	0B4	reserved	0F4
OBA05IN	035	ACA01CR0	075	reserved	0B5	reserved	0F5
OBA05OU	036	ACA01CR1	076	reserved	0B6	reserved	0F6
reserved	037	ACA01CR2	077	reserved	0B7	reserved	0F7
OCA06FN	038	reserved	078	reserved	0B8	reserved	0F8
OCA06IN	039	ACA02CR0	079	reserved	0B9	reserved	0F9
OCA06OU	03A	ACA02CR1	07A	reserved	0BA	reserved	0FA
reserved	03B	ACA02CR2	07B	reserved	0BB	reserved	0FB
OCA07FN	03C	reserved	07C	reserved	0BC	reserved	0FC
OCA07IN	03D	ACA03CR0	07D	reserved	0BD	reserved	0FD
OCA07OU	03E	ACA03CR1	07E	reserved	0BE	reserved	0FE
reserved	03F	ACA03CR2	07F	reserved	0BF	CPU_SCR	0FF

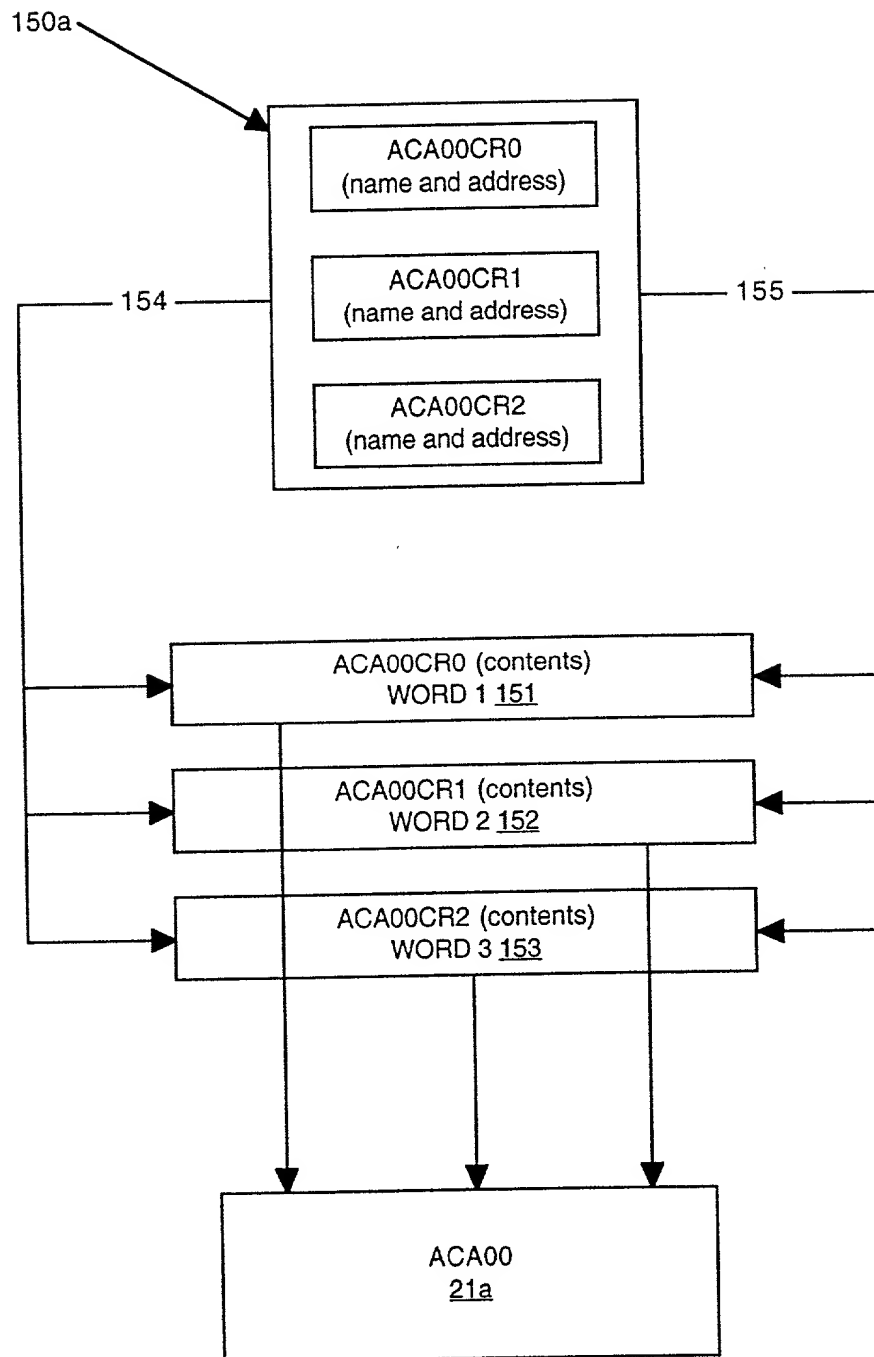


Figure 16

151 → • Word 1 (LSB) F0 F1 F3 G N/C N/C N/C N/C (MSB)
 152 → • Word 2 (LSB) P0 P1 P2 N0 N1 N2 CEN OS (MSB)
 153 → • Word 3 (LSB) S0 S1 N/C N/C R0 R1 R2 R3 (MSB)

Figure 17

- Word 0 (LSB) A0 A1 A2 A3 A4 S PS OSZ (MSB)
- Word 1 (LSB) B0 B1 B2 B3 B4 I11 I12 IS3 (MSB)
- Word 2 (LSB) C0 C1 C2 C3 C4 AZ CS OS (MSB)
- Word 3 (LSB) S0 S1 IS21 IS22 DO1 DO2 R1 R2 (MSB)

Figure 18A

- Word 0 (LSB) A0 A1 A2 A3 A4 S PS OSZ (MSB)
- Word 1 (LSB) B0 B1 B2 B3 B4 I11 I12 I13 (MSB)
- Word 2 (LSB) C0 C1 C2 C3 C4 AZ CS OS (MSB)
- Word 3 (LSB) S0 S1 MB N/C DO1 DO2 R1 R2 (MSB)

Figure 18B

0930034-04403

190

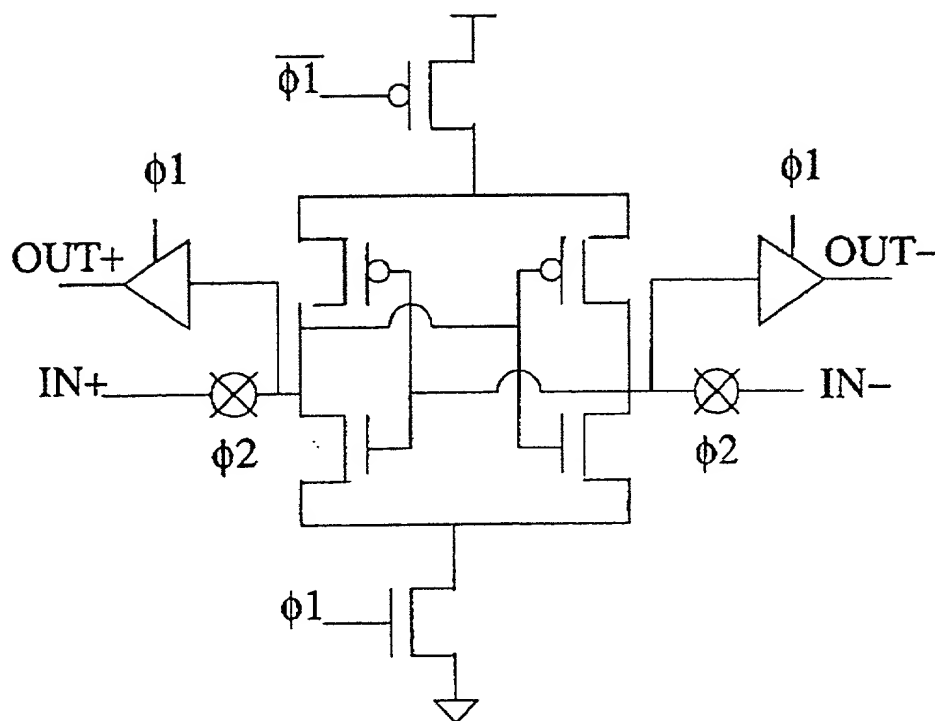


Figure 19

0593004-0440

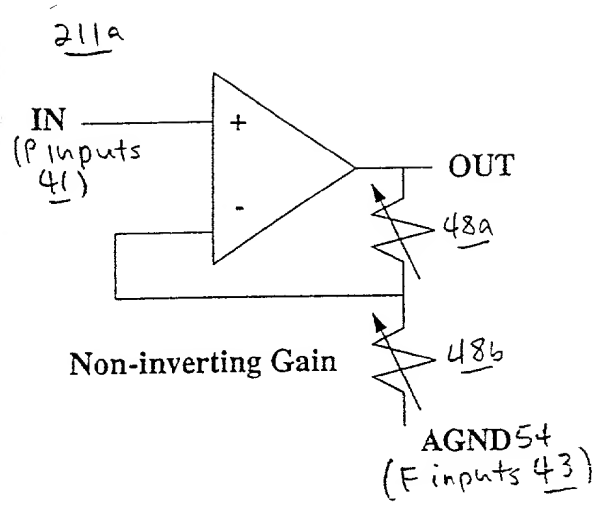


Figure 21A

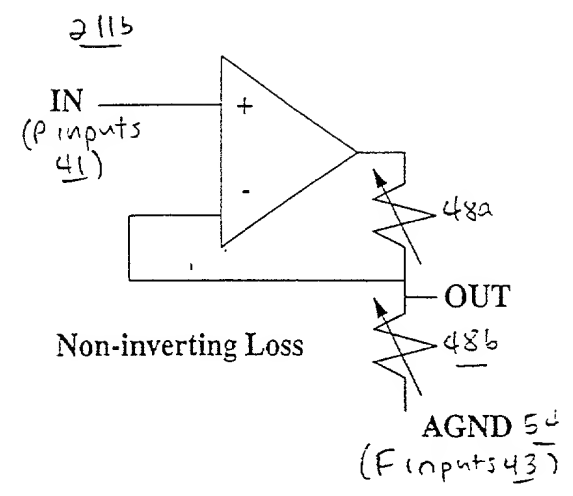


Figure 21B

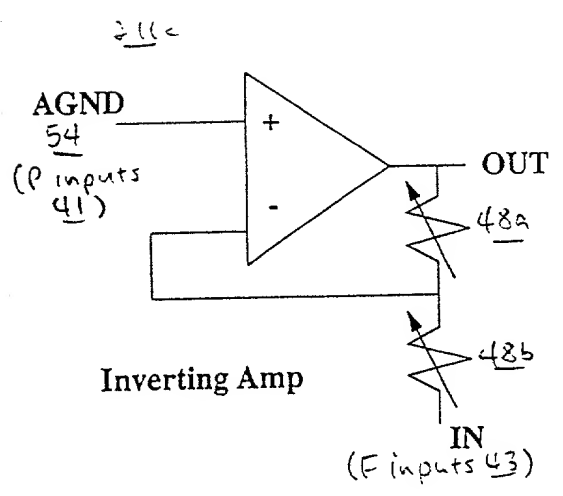


Figure 21C

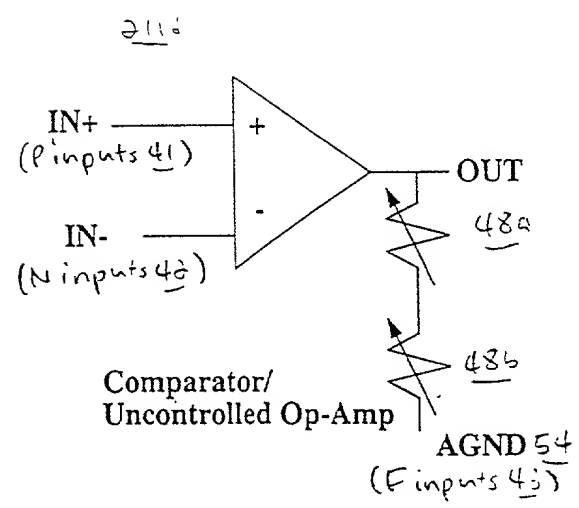


Figure 21D

05930034-04403

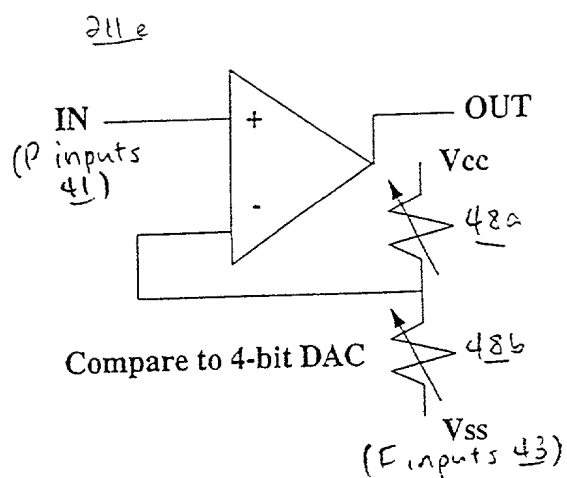


Figure 21E

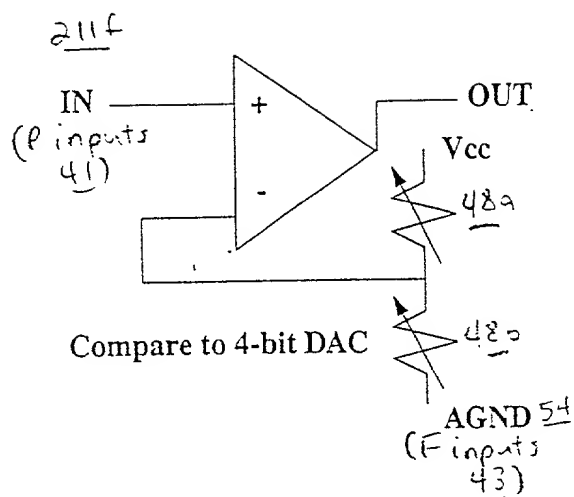


Figure 21F

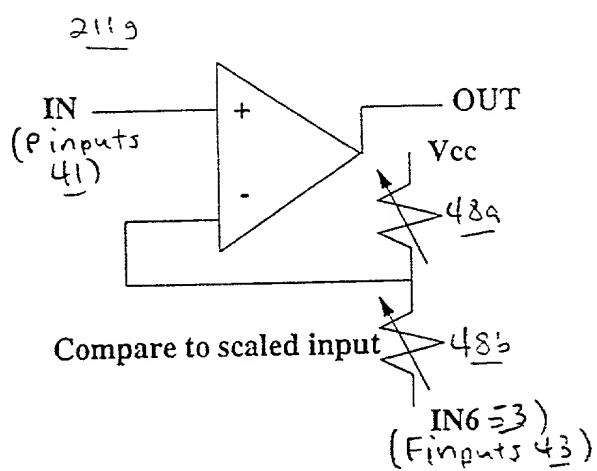


Figure 21G

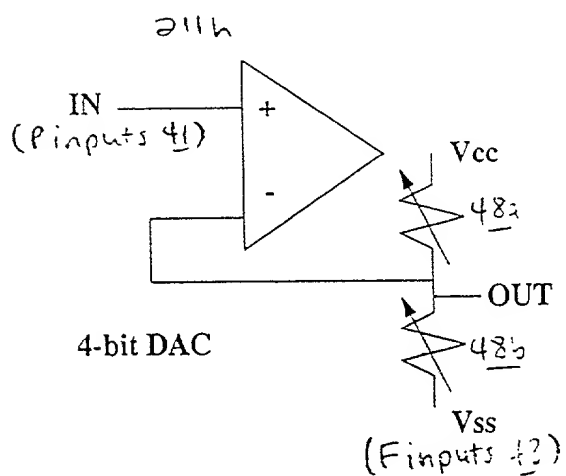


Figure 21H

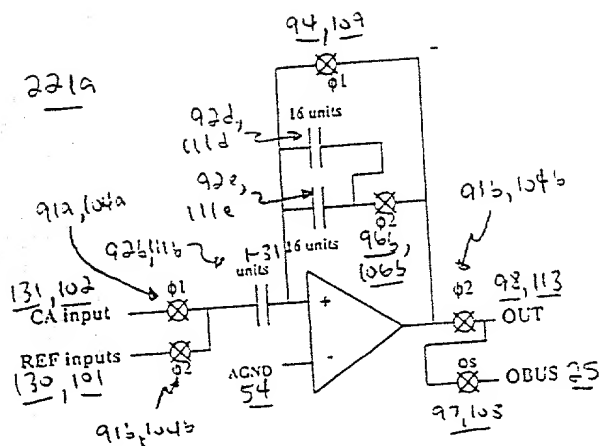


Figure 22A

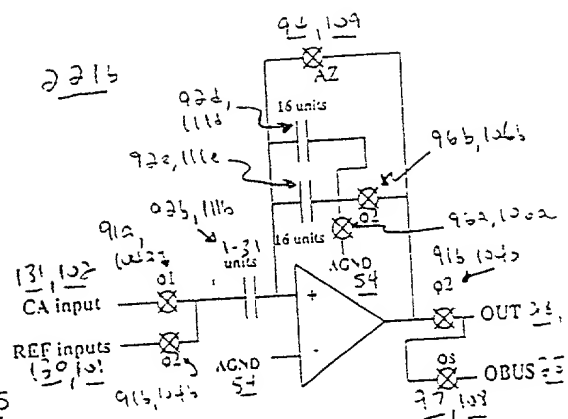


Figure 22B

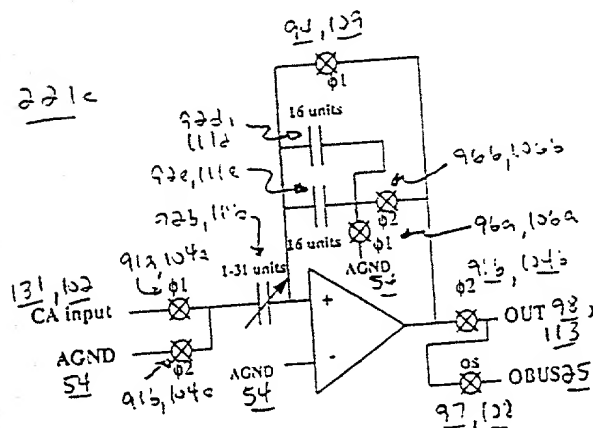


Figure 22C

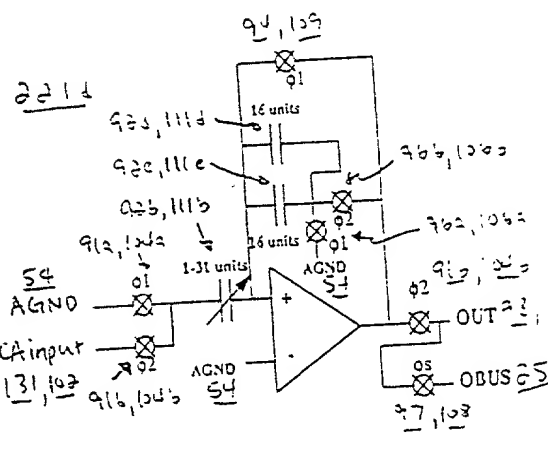


Figure 22D

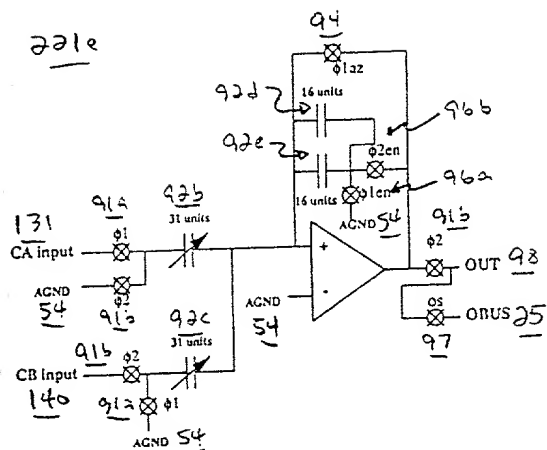


Figure 22E

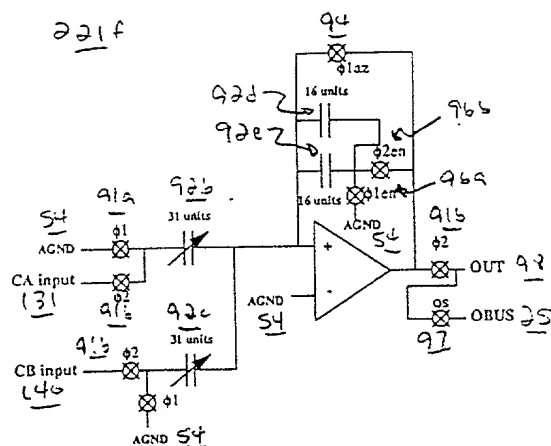


Figure 22F

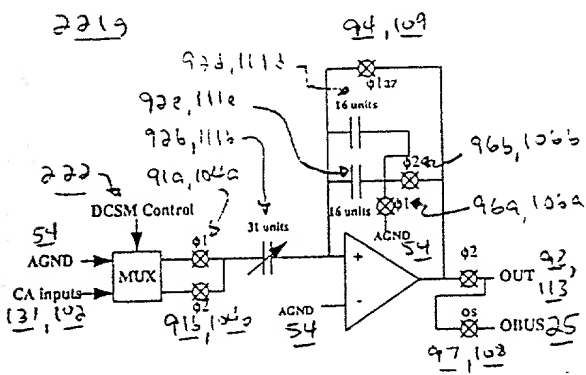


Figure 22G

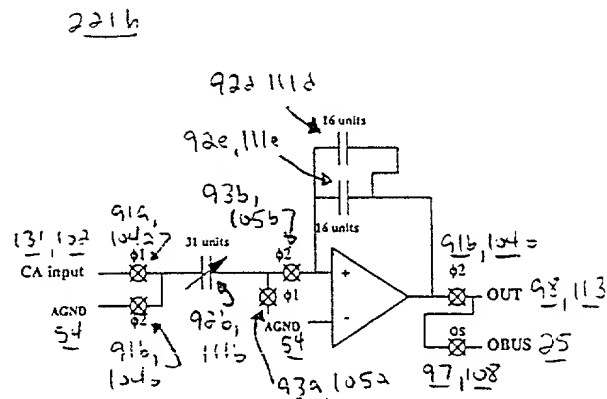


Figure 22H

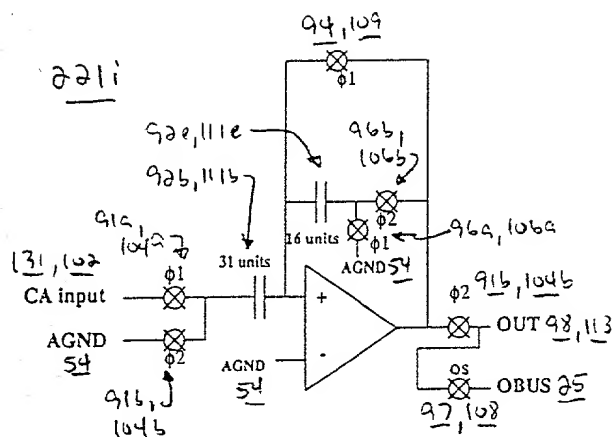


Figure 22I

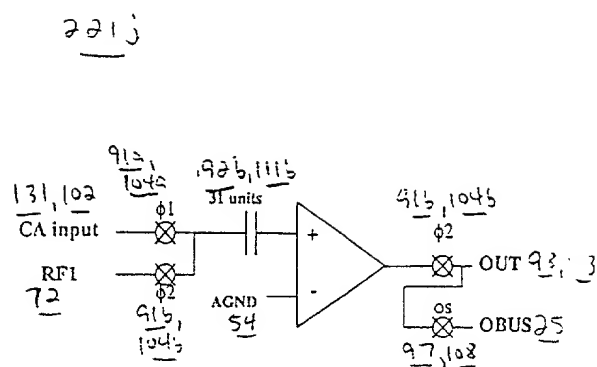


Figure 22J

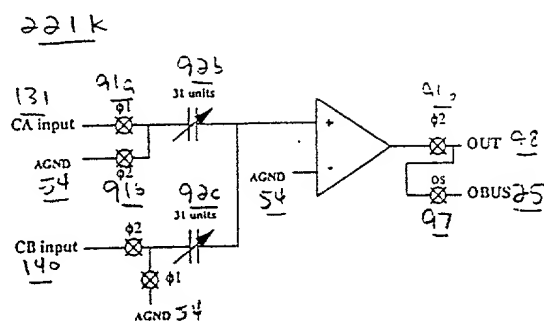


Figure 22K

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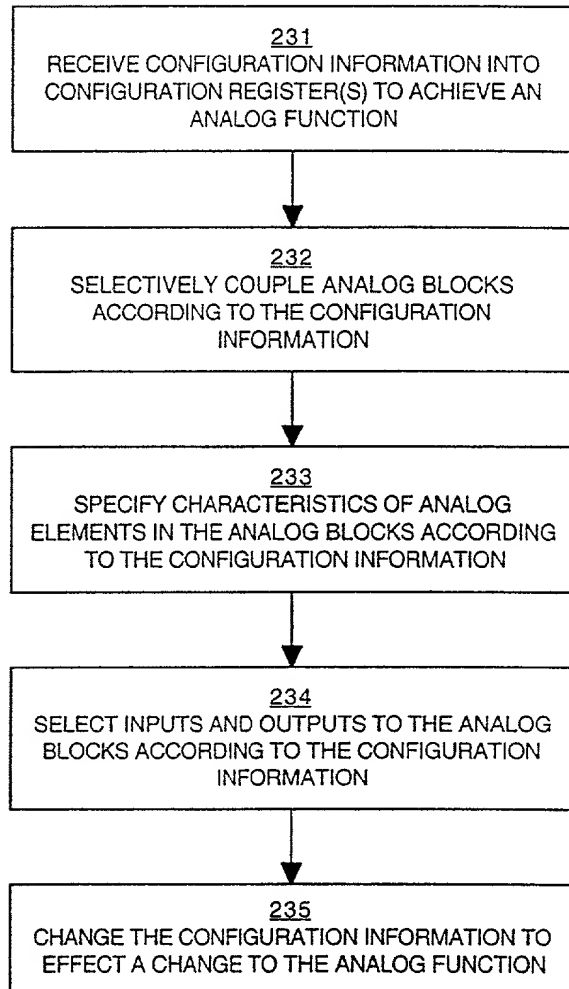


Figure 23